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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/777,674	02/07/2001	Kiichi Ueyanagi	108551	3351
25944	7590	02/06/2004	EXAMINER	
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			PSITOS, ARISTOTELIS M	
			ART UNIT	PAPER NUMBER
			2653	17

DATE MAILED: 02/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/777,674

**Applicant(s)**

UEYANAGI, KIICHI

**Examiner**

Aristotelis M Psitos

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 November 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2,5-14 and 56-66 is/are pending in the application.
- 4a) Of the above claim(s) 12-14 and 56-65 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,5-11 and 66 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

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**DETAILED ACTION**

***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9/23/03 has been entered.

Claims 12-14, 56-65 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected inventions/species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 5.

In accordance with MPEP 808.01 (a) and that since NO allowable generic claim has been found (see action on the merits below), the restriction is proper. Stated another way, if an allowable generic claim is found, then a reasonable number of species would be rejoined since the no reason to insist upon the species election would be maintained.

The restriction requirement was made FINAL in the last Office action. Such a position is maintained.

With respect to claim 56, in accordance with MPEP §821, because this claim does not read upon the elected species, it is withdrawn from consideration and the previous position taken under 35 USC 112 (paragraph 2) is not maintained.

The examiner cannot ignore the claimed limitation of a shading element contained in this claim.

With respect to new claim 66, although applicant has failed to identify which species this claim read on, the examiner interprets such to read on the elected species. If this is not the case, it too will be treated in accordance with MPEP §821

The amendment to the title of the invention is greatly appreciated and has been entered.

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***Drawings***

In order to avoid abandonment, the drawing informalities noted in Paper No. 10, mailed on 6/23/03, must now be corrected. Correction can only be effected in the manner set forth in the above noted paper.

***Claim Rejections - 35 USC § 103***

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 1-2,5, 11 and 66 are rejected under 35 U.S.C. 103(a) as being unpatentable over either Rottmayer et al further considered with Bischoff et al (R1) , or alternatively Hintz considered with Bischoff et al (H1) and either (R1 or H1) each further considered with Takayama et al.

Rottmayer et al discloses a composite transducer arrangement for recording/reproducing wherein a laser light source is channeled through a fiber optic and emerges in a magnetic write gap. Applicant's attention is drawn to figure 4-7 and the associated disclosure thereto.

✓ Alternatively, as noted in col 6 lines 60 plus in Hintz a combined magnetic/optical head arrangement wherein the laser light is passed through an appropriate channel through a magnetic write gap.

With respect to the remaining limitations of claim 1, there is no clear depiction in either Rottmayer et al or Hintz that the magnetic portion is a thin film magnetic head.

Bischoff et al discloses in this environment the use of thin-film magnetic heads – for there advantages – see col. 1 line 15 to col. 2 line 52. Although the thin film is placed at the bottom of a flying head the overall arrangement met the claimed "stacked" limitation.

It would have been obvious to modify the base system of either Rottmayer et al or Hintz with the above thin film magnetic head ability as taught by Bischoff et al, motivation is for the reasons stated in Bischoff et al.

With respect to the limitations of the sizes of the beam spot size and the magnetic gap, the examiner interprets that the beam spot size generated in Rottmayer et al is larger than that of the

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magnetic write gap by the use of the tapering waveguide element depicted in figure 7.

Alternatively, if applicant can convince the examiner that such is not the case, then Takayama et al teaches the appropriate sizes of the beam spot size vs. the magnetic write gap – see col. 17 lines 1-20.

It would have been obvious to modify the base system of either Rottmayer et al and Bischoff et al or Hintz and Bischoff et al with the above teaching from Takayama et al, motivation is to use existing manufacturing parameters and hence save the expense and time in retooling for manufacturing.

With respect to the limitations of claims 2 and 11, these are considered present in Bischoff et al – see the discussion with respect to the coil arrangements. The limitation of claim 66 is also self-evident, i.e., the write gap is substantially parallel to the laser beam surface, and the magnetic field limitation is present.

As noted in Bischoff et al therein, there is a “step” arrangement for the opening through layers 161 and 160. The examiner interprets these as meeting the limitations of claim 5

### ***Response to Arguments***

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

3. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claim 1 above, and further in view of Ishii et al.

With respect to claims 6 and 7, although the shape of the coil arrangement is not specified in the base documents, obviously there must be some shape. Selection between different shapes, circular, cylindrical, rectangular is deemed merely a selection between alternative equivalents predicated on the size/shape of the desired magnetic field and further taught by the Ishii document.

It would have been obvious to modify the base system of Rottmayer et al or Hintz and each further with the above teaching from Ishii with respect to the shape of the coil motivation is to select a shape of the final magnetic field to a desired shape since no unexpected results are seen to occur from field shape selection.

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4. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claim 2 above, and further in view of the acknowledge prior art – see MPEP§2144.03 with respect to the use of Official notice.

Both edge emitting lasers and vertical cavity surface emitting semiconductor limitation of claims 9 and 10 are considered to be of a well know/established type of semiconductor and Official notice is taken thereof.

It would have been obvious to modify the base system as relied upon with respect to claim 2 with the above well know semiconductor type motivation is to use established laser semiconductors and save valuable resources, such as time and money.

Applicant's arguments with respect to claim 10 have been considered but are moot in view of the new ground(s) of rejection.

#### ***Allowable Subject Matter***

Claim 8 is allowable over the art of record.

#### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Takao et al – see figure 13 combined magnetic and optical transducer in this environment.

Nakao et al can also be relied upon for teaching the combined laser and magnetic transducing element for recording/reproducing in this environment. The Nakao et al reference can also be relied upon in place of either Rottmayer/Hintz for such a disclosure in the above rejections.

**Hard copies of the application files are now separated from this examining corps; hence the examiner can answer no questions that require a review of the file without sufficient lead-time.**

**Any inquiries concerning missing papers/references, etc. must be directed to Group 2600 Customer Services at (703) 306-0377.**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aristotelis M Psitos whose telephone number is (703) 308-1598. The examiner can normally be reached on M-Thursday 8 - 4.

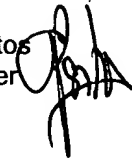
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William R. Korzuch can be reached on (703) 305-6137. The fax phone numbers for the organization

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where this application or proceeding is assigned are (703) 872-9306 for regular communications and for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

Aristotelis M Psitos  
Primary Examiner  
Art Unit 2653



AMP  
February 4, 2004